CH670-1
Computer
packaging
#1768200001 3060049
COPY TWO NATIONAL INFO SERVI
CONGRESSIONAL WEST HWY SITE 1
4256 EAST WEST HWY 20814
BETHESDA
REPORT ON EDI

PurchasingWorld

Helping you manage —the business of buying

Vol. 29 No. 6-June 1985

Special report: PACKAGING

50 Packaging is one of year's best buys
A recent *PW* survey shows that buyers intend to be very aggressive in packaging buying. In this highly competitive, $60 billion-a-year industry, price increases are expected to hover around 2%—half that of last year's hikes.

58 *Cover Story:*
Packaging takes on new high tech forms
Continental Can Corp.'s new "materials indifferent" approach to packaging design encourages creative solutions to customers' needs with the help of innovative computer assisted design.

62 It's in the bag, box, bottle, can
For the packaging buyer, the fast paced changes in the field spell opportunity. Packaging developments are literally exploding on the scene, giving buyers plenty of choices and lots of room for cost saving.

50

65

Features

72 How to get started in EDI
The experts predict that virtually every company will soon have to install some kind of electronic data interchange (EDI) system to stay competitive. Here's how EDI systems can improve your company operations and how several major industry groups are planning to use EDI to streamline their business.

90 Quarterly Transporation Report—
The kind of year(s) a shipper can live with
Wharton Econometrics forecasts only about a 3.3% overall transportation rate hike for this year. And the extended outlook by mode is equally as easy to live with for buyers.

PW10* Steel still dominates food can market
Holding its dominant place in the food can business, steel accounts for 96%, or 26.5 billion cans, of the 27 billion food cans produced annually. Developments in the industry show why steel still dominates.

Cover Photo: This month's cover features Continental Can Co.'s new fully integrated graphic design and production services, CIRCA Inc.—an advanced computer assisted design system specifically tailored to the packaging industry. See story on page 58.

PurchasingWorld (USPS 472-470) is published monthly by Huebner Publications, Inc., 6521 Davis Industrial Parkway, Solon, OH 44139. Printed in USA. Subscriptions: Available without charge to qualified purchasing executives in US manufacturing companies. Available to others in the US for $46/year; Canada $56/year. Foreign subscriptions are available for $70 airmail or $40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA 13QT, England. Second class postage paid at Cleveland, OH, and additional mailing offices. Editorial, circulation, and business offices: 6521 Davis Industrial Parkway, Solon, OH 44139.

© Copyright 1985 by Huebner Publications, Inc., subsidiary of International Thomson Business Press—All rights reserved. ISSN 0093 1659.

Postmaster: Send address changes to PurchasingWorld, 6521 Davis Industrial Parkway, Solon, OH 44139.

Departments

4 PW Pointers
6 Editorial
11 PW Predicts
19 Business Datatrak
38 Value Analysis
42 PW Transportation Report
46 Law
48 Negotiations
65 Crystal Ball Contest
89 Ad Index
PW2* PW Office '85
PW14* Tech File
PW16* MRO Products
PW20* Catalogs

* Regional and demographic issues only

PW PREDICTS

Robert S. Reichard, executive editor

Firming in prices coming

Keeping prices on a relatively even keel may not be quite so easy from here on in. One reason is that productivity increases have slowed. Factory efficiency gains, which ran at about a 3% rate last year, are beginning to slow down in line with the slower pace of industrial production.

Right now, a 1.5% overall productivity boost is anticipated for 1985. Superimpose this on last year's 4.5% average pay boost—and you end up with about a 3% increase in unit labor costs.

This is nothing like the double digit advances of a of a few years back, but it does signal a change from last year when this bellwether yardstick of cost pressure on prices rose by only about 1%.

The modest erosion in the dollar could be another factor leading to a price speedup. Though nothing spectacular has happened, it does represent a change from last year when the dollar appreciated 15% *vis a vis* the currencies of our major trading partners.

Other things being equal, a weaker dollar means that overseas sellers are now more likely to raise prices than lower them (as many did last year).

And in the energy sector prices are expected only to inch up. But this represents a change in performance from last year when overall energy tags actually declined by 5.5%.

To sum up: The three factors (labor, the U.S. dollar, and energy) are no longer working on the side of smaller price increases. That does not mean that we are on the verge of an inflationary spiral. Competitive pressures (both U.S. and European factories are still operating in the low 80% range) would certainly seem to oppose this scenario—especially if Free-World economies continue to grow at today's relatively slow 3% annual rate.

On the other hand, these changing trends do seem to suggest that price boosts rather than declines will become increasingly likely—if not over the next few months then certainly toward year end and into 1986. With the above in mind, *PW* has revised its projections—the GNP deflator will slowly begin to accelerate at about a 4-5% annual rate over the next few quarters.

A similar trend is seen for industrial producer prices—the area of more immediate concern to purchasing executives. Analysts at Wharton Econometrics put the increase in industrial tags over the next two quarters near 2.5% at annual rate, and perhaps at a 3% pace by early 1986.

Finally, the cost-of-living picture is pretty much the same. Some acceleration, reflecting higher gasoline prices, is already evident. The first quarter 1985 advance is put at near 4% at annual rate (vs only 3.2% for the previous three-month period). In short, this is no time to let down our inflationary guard.

PBXs

Don't count on prices of private branch telephone exchanges (PBXs) declining.

Quotes could even edge up a bit over the next few years despite the combination of intensifying competition and technological advances. Reason: a gradual shift to more expensive digital systems.

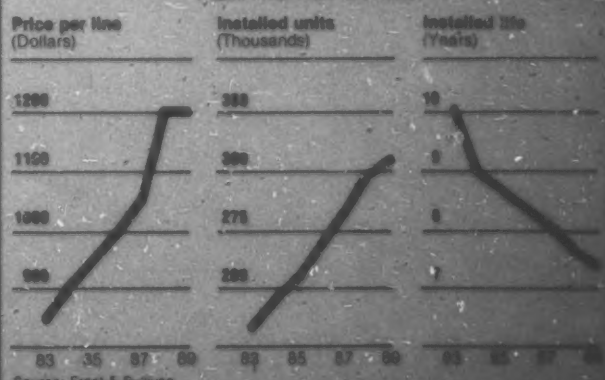
Frost & Sullivan Inc. puts the average price per line in the $1,200 range by 1989—a steady advance from this year's $950 estimate and the $1,050 projected for 1987.

Higher price tags won't stop growth but the rate of advance should slow down as saturation levels are gradually approached. Frost & Sullivan thinks sales will advance about 5% annually over the next few years—sustained by replacement purchases.

The impact of replacements can be appreciated if one considers the fact that this year replacements will outnumber new sales by an almost 2:1 margin. The growth of the replacement market is largely because the installed life of the typical PBX is shrinking as advanced features become standard and as software upgrades proliferate. The average installed life of a PBX, which has already fallen from 10 years in 1983 to 8.7 in 1985, could drop to 7.5 in 1989 and to only 6.3 by 1993.

Whether replacement or first-time sales, the number of installed systems is growing impressively. There should be as many as 311,100 systems in operation by 1989—compared to only 254,700 expected this year. Smaller systems (0-99 lines) will continue to dominate, accounting for roughly three of every five installations.

PBX market trends



Source: Frost & Sullivan

PW PREDICTS

Steel

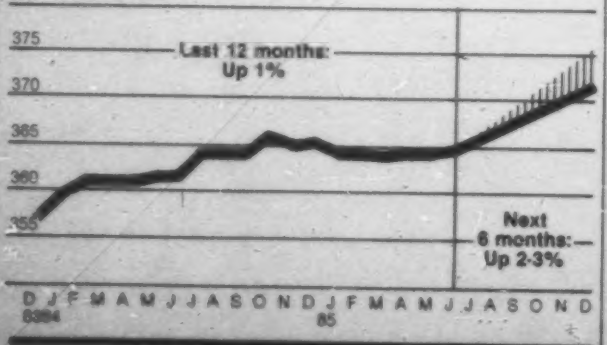
CURRENT SITUATION: Buyers are still calling the signals as lackluster demand, lingering overcapacity, and continued import competition combine to keep tags under pressure. Only a few of the recent price boosting attempts have been successful. **Flat rolled products are especially soft.** Distributors and users are receiving discounts ranging from $60-130/ton off list. Why the easiness? Imports have continued to flow into the country and accounted for 28% of the market this past quarter.

DEMAND: The second quarter looks better than the first when only 18 million tons were shipped. But even if you factor in a good spring and summer, U.S. mills will probably ship only 76 million tons this year—only 2.5 million more than in 1984. Low consumption is a problem—**only 97 million tons are likely to be used by U.S. factories this year.** That's just 1.5% above 1984. Larger gains are seen for trucks, construction, machinery, and rail equipment.

SUPPLY: No problems anywhere as domestic mills continue to operate at or under 75% of their capacity. The impact of voluntary import restraints will be gradual so plenty of imports will be around—20% of the overall market this year. Another sign of ample supplies: Surveys suggest that buyers may soon be paring inventories. Some reversal could occur in 1986 if the breakup of coordinated labor negotiations brings selective strikes.

PRICE OUTLOOK: The combination of import restraints, improved demand, and a tightening cost-price vise clearly spell increases. Advances in flat-rolled items seem inevitable by fall but they'll be in the form of reduced discounting so they won't show up in official indexes. Indeed, **the overall mill product index isn't likely to rise by more than 2-3% by year end.** A similar pattern is seen for 1986.

Steel prices (list)
(Index: 1967 = 100)



Copper

An early spring rally has run out of steam—several cents have been knocked off recent 72¢/lb highs. The lull is being caused by a drop-off in Japanese buying, so-so European and domestic demand, and a levelling of the U.S. dollar after recent declines. Nevertheless, the prognosis is still for higher prices ahead given falling exchange stocks and expectations of another 2-3% global consumption gain for 1985. Best bet: copper price tags at 75¢/lb by sometime this summer and 80¢/lb by the end of the year.

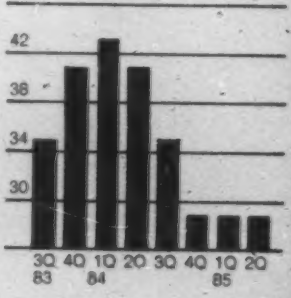
Printers

A new price war could be in the making, especially in the hotly competitive dot matrix area. A while ago, several Japanese producers cut prices as much as 30%—enough to bring one Epson low-end model down to about $299. And IBM has also entered into the fray by introducing a new low-priced letter quality dot matrix model priced at $549. It is said to be at least $100 under similar Japanese models. Tags could go even lower when volume production is achieved by IBM.

Polyethylene

The 2-4¢/lb increases announced for spring have not held up. In fact, with buyers continuing to call the signals, both the low-density liner/film grade and the high-density injection molding grade are still holding in the low 28-30¢/lb range—far under the 45¢/lb and higher official list levels. One reason: falling feedstock costs (ethylene has dropped 1.5-2¢/lb since the beginning of the year). And demand gains for 1985 are relatively slight. Overall LDPE and HDPE shipment increases are only 1.5% and 2.5% respectively.

Low density polyethylene
(liner/film grade)
(Market price ¢/lb.)



Aluminum

Weakness is still the order of the day. Signs of the times: (1) bigger discounts on common alloy sheet, (2) price reductions in plate, (3) the availability of cheap 45-48¢/lb imported secondary ingot, and (4) GM pressure for guaranteed prices over the 1986 model year. But some firming seems inevitable as U.S. consumption rises another 4% this year. Also production cutbacks are slowly narrowing the global supply-demand imbalance.

Some speak of 65¢/lb ingot by the end of 1985, but 60¢/lb looks more

PW PREDICTS

Energy

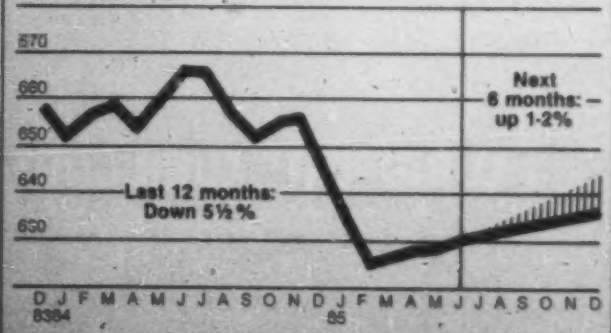
CURRENT SITUATION: No problems anywhere. Prices are no longer falling and there is little chance of any repeat of the big 5.5% overall drop of the past 12 months. However, everything is in ample supply. **And there's plenty of competition aided by less-than-anticipated demand gains.** Lest there be any doubt that buyers are still in charge, consider (1) recent declines in natural gas, (2) problems oil producers are having in maintaining recently reduced crude oil prices, and (3) shaky coal prices that are running $1-2/ton under last year.

DEMAND: Overall U.S. energy consumption for 1985 should reach only 75.4 quadrillion BTUs—up just 2% from last year. Growth could be even lower by early 1986 as conservation and decelerating GNP gains put a ceiling on consumption. One sure sign of the conservation impact: The declining GNP ratio (44.9 thousand BTUs per 1972 dollar of real GNP versus 47.9 three years ago). Best bets for 1985: **oil (no change), natural gas (up 2%), electricity (up 3%), and coal (up 5.5%).**

SUPPLY: Supplies are ample everywhere. In oil there are increasing signs that OPEC may have problems maintaining recently reduced production quotas. Moreover, non-OPEC oil continues to increase. And in natural gas the so-called gas bubble—defined either as "an excess deliverability against immediate demand" or as "a longer term surplus which may last for several more years"—shows few signs of disappearing. **No problems for coal mines or electricity generating capacity.**

PRICE OUTLOOK: Figure on nothing more than a very modest 1-2% increase over the rest of 1985. And this may be on the high side as (1) OPEC finds it hard to maintain or increase benchmark crude prices, (2) spot markets and cheap Canadian imports cap natural gas tags, and (3) competitive infighting puts pressure on coal.

Energy prices
(Index: 1967 = 100)



realistic—and it should be enough to put most producers back into the black for the first time in nearly a year.

Paper

Recent softness persists as mills are still unable to get much above $300/ton for their linerboard—some $50/ton under the official $350/ton list. Uncoated paper is not very firm either. A new $60/ton increase has just been posted, but chances of it having any real impact seem slim—as big buyers still report off-list deals and more-than-ample supplies. Also, a new 6.5% price boost for newsprint could be in trouble.

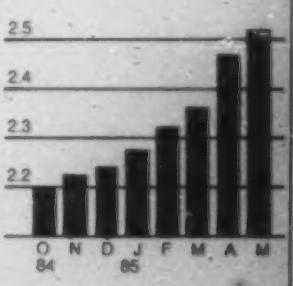
Moving service

Formal contractual agreements with van lines could mean substantial savings on relocating moves. A new nationwide survey finds that such agreements yield 20.5% average discounts—4% more than for firms that do not use this approach. Result: Some 77% of responding firms now use "contract carriage agreements"—nearly double the number of just two years ago.

Nickel

Prices have been firming—with cathode moving into the $2.50/lb range (up some 25¢ from earlier 1985 lows). Better-than-anticipated demand and an expected first half 1985 production-consumption shortfall are causing this upward pressure. Specifically, January-June demand is put at 685 million pounds—some 65 million above output. Result: Global stocks in the first half will be only 245 million lb. This could all prove temporary as new production comes on-stream, suggesting stabilization of second half stocks and maybe even a reversal of the recent uptrend by late summer or fall.

Nickel
(Cathode)
(Dealer, $/lb.)



Zinc

Softness is creeping into the market—despite a relatively closely balanced supply-demand situation. Buyers report substantial discounting—the going quote is only 45¢/lb. While there are still positive factors at work, namely (1) expectation of U.S. and global demand increases for 1985, (2) the closing down of a big Asarco refinery, and (3) the continuing threat of strikes. But this is balanced by ample overseas capacity and recent increases in U.S. user inventories. Best bet: barring a major strike, quotes will

Trends in word processing

The word processing market is undergoing a major change as personal computers with word processing software become the preferred type of equipment.

Some 51% of office managers responding to a new Administrative Management Society (AMS) survey say they now use, or are thinking of using, PCs—a hefty 15% jump over 1984 levels.

But use of both dedicated standalone CRT display/printers (48%) and electronic typewriters (37%) is actually declining. Other types of equipment used for word processing include multi-terminal devices (35%), data processing equipment with WP capacity (31%), and mag cards (12%).

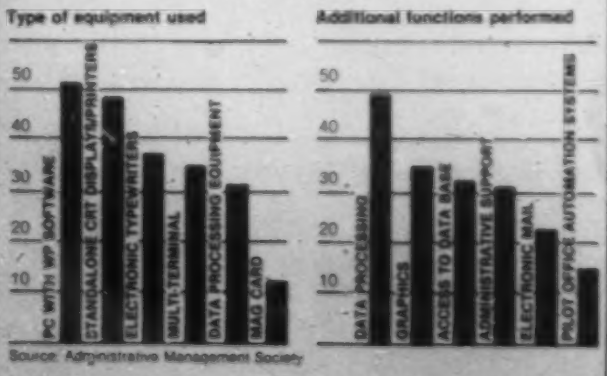
And the trend toward PCs is continuing. A majority of firms (58%) who say they are considering WP equipment feel they will probably purchase PCs rather than dedicated word processors.

Other key findings of the new survey:

- 85% of the responding firms say they use some form of word processing—the same as last year but well above the 75% figure of 1983.
- Word processors are being used more intensively. Specifically, 46% of the respondents are already doing, or plan to do, over half of their typing on word processors—up from only 38% just one year ago.
- The most popular equipment is IBM (39%)—followed by Wang (14%).
- A majority of respondents use their word processors for functions other than word processing. The most common of these: data processing, graphics, access to central data bases, administrative support, electronic mail, and pilot office automation systems.

A detailed look at word processors

(Percent of respondents)



Source: Administrative Management Society

Semiconductors

Disappointing demand is forcing most manufacturers to reappraise earlier 1985 projections. One industry source now sees a sizeable negative number for the year—projecting a decline of more than 14% in overall dollar sales *vis a vis* 1984—with both integrated circuits and discreet types sharing equally in the decline. Add in a growing capacity glut—and prices are also expected to continue falling. All told, industry averages could be off about 8-10% for the year. Some memory chips may drop by as much as 20-30%.

Chlorine

Two 1985 increases ($15/ton in January and $10/ton in March) seem to be taking hold. Blame it on high operating rates (80-85%) and rising demand from PVC makers. But tags still have a way to go before reaching official $195-205/ton lists. Thus even with the new hikes, Gulf Coast material is still only commanding $125/ton from big customers, and about $165 from medium-volume buyers.

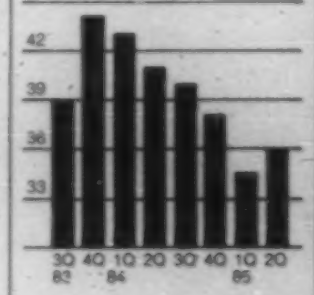
Polystyrene

An April price increase seems to be holding up fairly well. Market quotes for the general purpose grade are now in the 35-37¢/lb range, (up 1-2¢/lb from previous levels). A recent 3-5¢/lb increase will probably run into buyer resistance because it follows too closely on the heels of an earlier boost. Also, operating rates are still averaging under 70%, and demand is not very strong (about a 2% overall increase is expected for 1985).

Polystyrene

(General purpose)

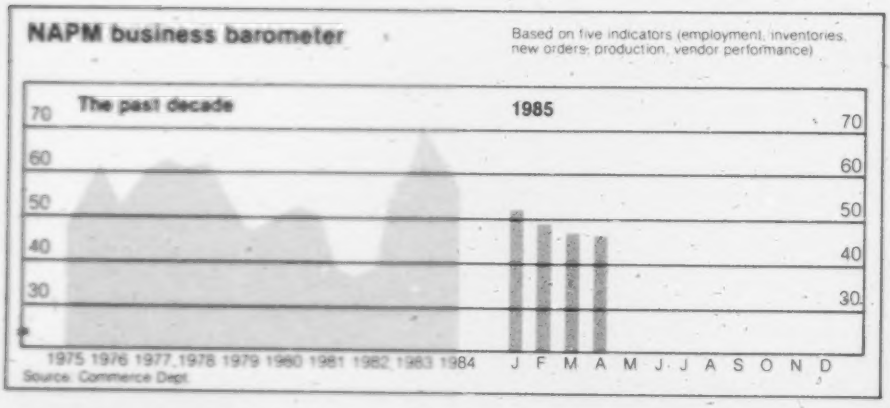
(Market price ¢/lb.)



Lead

Tags have stabilized around the 20¢/lb mark—with the possibility of somewhat higher quotes ahead if current labor problems aren't resolved. The start of the battery buying season in a few months should also help to firm things up a bit. But don't expect any major run-up. For one, Asarco's 110,000 tons/year Missouri smelter won't be shutting down as had been feared. Producer inventories seem adequate and there is plenty of secondary capacity available if prices move above 21-22¢/lb (the producers' break-even point).

BUSINESS DATATRAK


NAPM business barometer
Based on five indicators (employment, inventories, new orders, production, vendor performance)
The past decade
1985
70
60
50
40
30
1975 1976 1977 1978 1979 1980 1981 1982 1983 1984
J F M A M J J A S O N D
Source: Commerce Dept.

KEY ECONOMIC TRENDS

Don't write off recovery yet

The first quarter GNP advance of 0.7% may not be very impressive, but closer examination suggests that the economy is stronger than the number indicates.

A slip in disposable income, for example, can be traced to computer-delayed tax returns rather than to any inherent weakness. Also, GNP was negatively impacted by sudden widening of the trade deficit an equally erratic narrowing in fourth quarter 1984.

Both of the above have to be regarded as one-shot affairs. A much better measure of the economy's underlying vigor is real domestic purchases which advanced at a 4% annual rate in the first quarter—well above the 1% increase of the previous three months.

And both consumers and businessmen remain optimistic. The Conference Board Index of Consumer Confidence, for example, climbed nearly five points in April, erasing much of the previous month's decline. And top executives responding to another Board survey suggest that business confidence is again on the rise.

While the degree of confidence expressed by the surveys is under those of a year ago, it is moving in the right direction and that's what counts.

Other indications are also positive. Most important is the slow decline in interest rates—with the prime borrowing rate under 10.5%—matching the second quarter 1983 low and far under the 13% reading that prevailed as recently as last summer (see chart).

Keep in mind that other things being equal, lower rates foster both business and consumer confidence, which provide added incentive to make marginal purchases.

This is clearly evident in auto sales which in April jumped above an 11 million annual rate, the highest since the beginning of the current two-and-a-half year recovery cycle. Interest rates probably played an even more important role than suggested by the 10.5% prime rate, since a fair portion of the sales jump came from the 8.8% financing offered on some models.

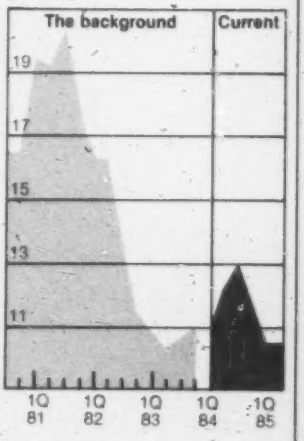
The declining cost of money is also playing a role in housing. With conventional fixed mortgages dropping down to near 13%, both housing starts and housing permits have turned up.

Other signs of strength on the construction front would have to include (1) a rise in single family home sales (to the highest level in over a year), and (2) a 12% jump over the last month in building awards. The F.W. Dodge index is now close to last year's high.

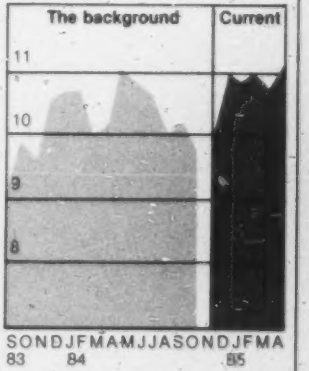
This doesn't mean that GNP is ready to take off again. There are some strong negative factors present that temper some of the pluses, including (1) a continuing record im-

Leading indicators

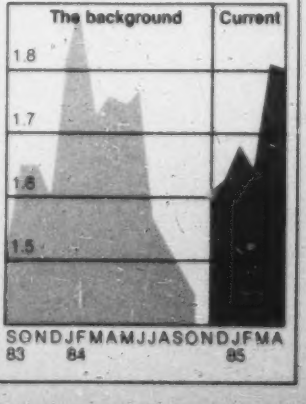
1. Prime rate
(Percent)



2. Auto sales
(Millions, seas. adj., annual rate)



3. Housing permits
(Millions, seas. adj., annual rate)



port flow, (2) an expected slowdown in capital spending in the second half, and (3) less-than-sensational employment gains.

These and other factors help explain why NAPM's Business Barometer continues to bump along near the neutral 50 mark. But there are some healthy signs. New orders, the most important component of the barometer, are increasing.

What does all this add up to? Certainly nothing spectacular, but nothing negative either. The odds favor relatively modest GNP advances (about 3% at annual rate over the third and fourth quarters).

Survey offers guide to fleet managers

If you are looking for some guidelines on fleet car strategy, the National Association of Fleet Managers (NAFA) may be just what you need.

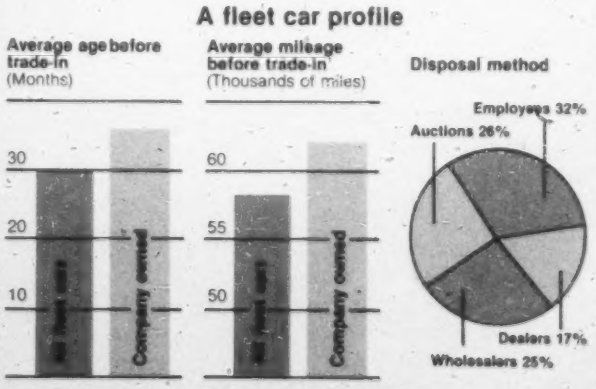
Some of the key findings—based on responses from some 143 commercial fleets with over 100,000 cars.

- **Lease vs ownership:** There is not too much preference here—with 53% of the respondents opting for leases and 47% preferring ownership.
- **Average car age before trade-in:** The norm runs at 2.5 years. But company-owned cars are held about three years on average.
- **Average mileage before trade-in:** The typical vehicle at trade-in has about 57,000 miles on the odometer. But there is a tendency to use company-owned vehicles more intensively—62,221 miles to be exact.
- **Disposal method:** Some 32% of the vehicles eventually end up in employee hands. The rest are disposed of as follows: 26% to auctions, 25% to wholesalers, and 17% to new or used car dealers.
- **Changes in replacement cycle:** Of the some 29 fleets who are shifting, 25 plan to shorten service life and only four contemplate extensions.

Another finding: Vehicles in both public utility and government fleets tend to be used more than those in commercial fleets.

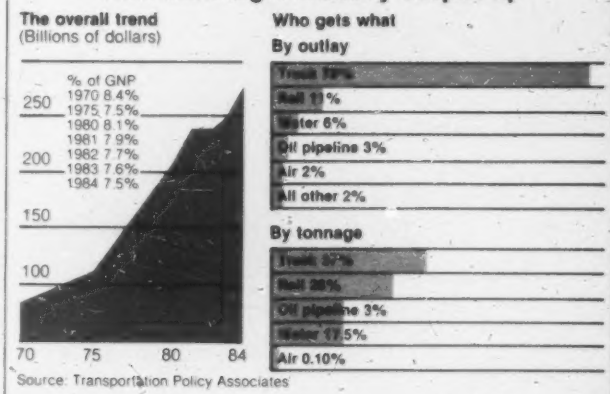
Specifically, the average utility car is held 68 months and driven close to 75,000 miles vs only 30 months and 50,000 miles for commercial fleets. Government vehicles are held about 57 months and are driven more than 81,000 miles before being traded.

A fleet car profile



Source: National Association of Fleet Administrators (commercial fleets)

How the freight industry shapes up



Source: Transportation Policy Associates

Freight bill at $275 billion; to climb in '85

American industry shelled out a whopping $275 billion to move goods from one place to another last year. That's 30% more than just four years earlier. And another good sized gain is seen for 1985.

The new figures are part of a recent study, "Transportation in America," compiled by Transportation Policy Associates, Washington, D.C. To put things in perspective look at these key yardsticks:

- **Freight's share of the GNP dollar:** A 7.5% portion is currently being allotted for freight—a figure that has tended to remain fairly constant in recent years despite a continuing shift to a service-oriented economy. On the other hand, this overall freight bite is somewhat under the 9% readings of the 1960s.
- **Mode-by-mode outlays:** At latest report, trucks were accounting for about 76% of total dollar billings—followed by rail (11%), waterways (6%), oil pipelines (3%), air (2%), and miscellaneous (2%). But air has been one of the fastest growing segments—recently accounting for close to $5 billion in billings.
- **Mode-by mode tonnages:** Trucks still show up in first place for intercity tonnage, but with only a 37% market share. Rails trail closely with 27.7% share.
- **Rates:** The study uses revenue-per-ton-mile as a proxy for rates. The aggregate increases over the three year period ending 1983 are as follows: rail (10%), LTL carriers (19%), TL carriers (5%), domestic air (2%), and barge (6%).

Data is also provided on passenger travel. Its share of the GNP is put at 12%. Most of this—10.2%—can be traced to autos. Air, the other major alternative, accounts for another 1.3%.

CURRENT PRICES

It's still a no-inflation scenario

Ignore this month's small 0.4% increase in industrial producer prices. It looks to be nothing more than a temporary blip. Virtually all of the advance can be traced to energy. Subtract the big boost in gasoline and some other petroleum products and this bellwether index of inflation actually shows a fractional decline from last month.

The rise in energy prices can be considered a one-time correction because these prices fell too much during the past winter. There is really no upward pressure on basic oil prices. And all signs seem to be pointing to a return to energy stability by next month.

Even more important,

This month's breakdown

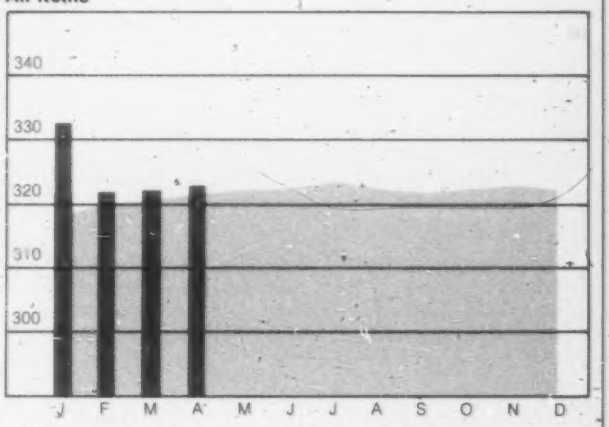
	Latest level (Apr.)	% change from: Month ago	Year ago
Bearings	347.1	−0.1	2.7
Bolts, nuts, etc	278.5	0.4	1.4
Chemicals, inorganic	299.5	−0.1	3.2
Chemicals, organic	351.5	−0.1	−5.5
Concrete products	316.9	0.6	2.6
Corrugated cartons	284.6	0.1	9.7
Cutting tools, small	285.4	−0.1	1.9
Electric lamps (bulbs)	338.7	−0.6	−2.8
Electronic components	198.7	0.1	4.4
Fans and blowers	358.8	0.4	4.9
Foundry and forge products	362.9	−0.3	0.9
Fuel oil (residual)	1087.9	−2.2	−1.7
Furniture, commercial	305.0	0.5	3.0
Gasoline	545.2	5.5	−4.6
Glass, flat	220.5	−0.3	−4.2
Glass containers	371.4	0.2	3.7
Gypsum products	317.8	−1.0	−10.0
Hand tools	374.8	0.9	5.2
Hand tools, power driven	231.1	−0.8	3.8
Industrial furnaces	384.1	0.1	2.9
Integrating and measuring instruments	233.4	1.3	2.5
Internal combustion engines	347.8	0.3	3.1
Lubricating oil	766.9	−0.4	−3.9
Lumber millwork	309.5	−0.1	0.7
Material handling equipment	293.9	0.0	2.2
Metal containers	358.0	0.1	3.7
Metal mill shapes (nonferrous)	316.2	1.4	−3.6
Metal tanks	305.8	0.0	0.1
Motors and generators	350.6	0.1	3.3
Motor trucks	296.1	0.0	4.8
Office and store equipment	154.9	0.7	0.3
Paperboard	284.0	−0.6	2.5
Paper boxes and shipping containers	275.7	−0.4	5.5
Paper office supplies	240.5	0.2	−1.7
Paint	280.4	0.3	4.4
Plastic resins	308.1	0.9	0.1
Precision measuring tools	264.0	0.9	4.2
Pumps and compressors	355.4	−0.1	1.5
Refractories	370.0	0.5	2.3
Rubber belts and belting	353.5	−0.1	2.0
Scales and balances	229.2	−0.2	−0.8
Steel products	364.8	0.1	1.1
Switchgear	276.7	−0.3	−0.1
Textiles, synthetic fibers	156.8	0.1	−2.4
Textiles, gray fabrics	151.8	−0.5	−0.8
Tires and tubes	239.1	−0.9	−1.8
Transformers and power regulators	232.6	−0.8	2.6
Welding equipment	286.1	−0.1	0.4
Wire and cable	203.4	0.1	−1.3

Industrial prices

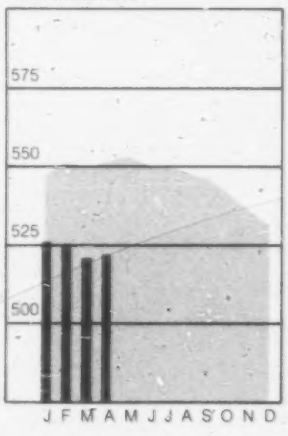
(Index: 1967 = 100)

1984 1985

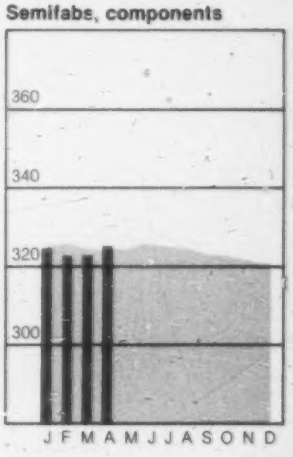
All items



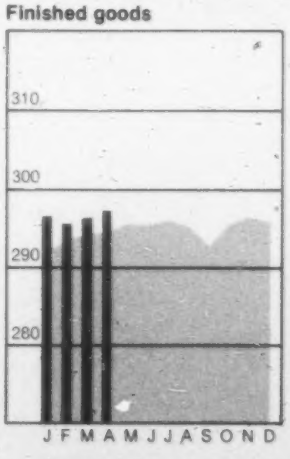
Raw materials



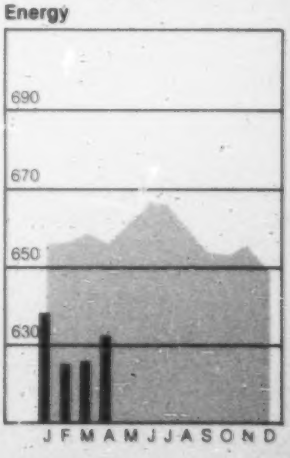
Semifabs, components



Finished goods



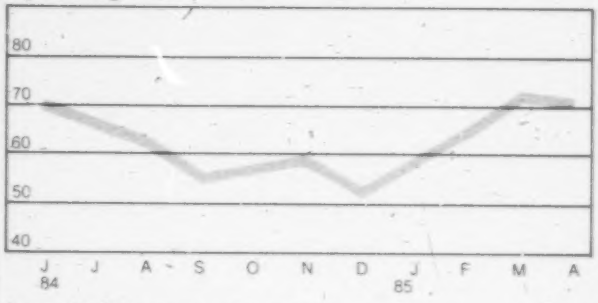
Energy



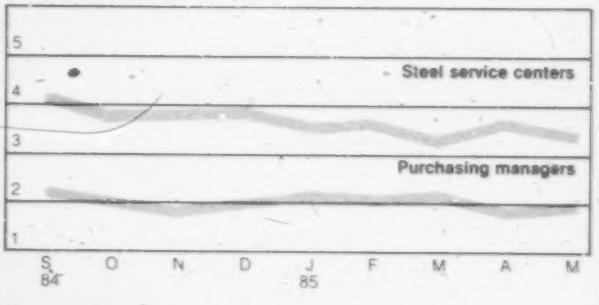
Source: Bureau of Labor Statistics

Steel

Operating rates

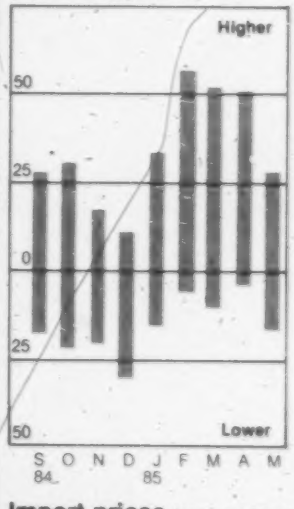


Inventories (months supply on hand)

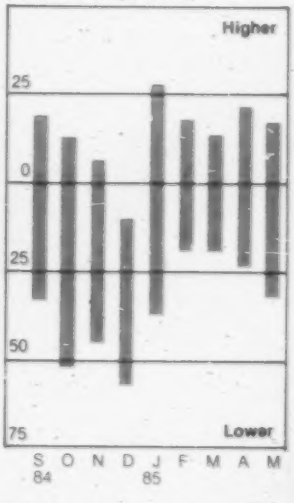


Demand

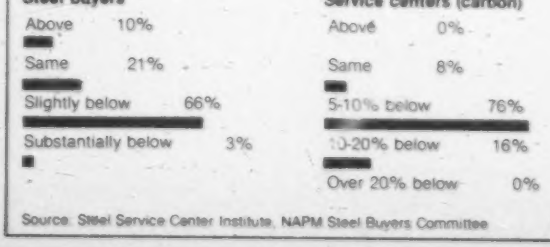
Service centers incoming orders
(Percent of respondents)



Steel buyer purchase
(Percent of respondents)



Import prices (compared to domestic)



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

the lastest overall product price readings show that manufacturers are not under pressure to increase prices as a result of their material costs.

A close look at some materials seems to support a non-inflationary outlook. Over the past several months, price declines were noted in industrial chemicals, many secondary products, cement, flat glass, softwood lumber, gypsum products, paperboard, and textile grey goods.

Metals don't seem to be going anywhere either. Most non-ferrous lines, for example, haven't risen above their recent lows.

Even fabricated goods, which had begun to inch up over the past few months, took a breather over the last 30 days. This was due to offsetting moves as increases in office machines, instruments, and hand tools were balanced out by declines in transformers, machine tools, and switchgear.

Finally, overall year-to-year comparisons remain encouraging. Of the 50 or so product lines regularly monitored by *PW*, 26 are actually running under last spring's levels—hardly a harbinger of any significant upward pressure.

STEEL SCENE

Looks like a banner year for service centers

Near term steel demand may not be all that buoyant. So say the buyers who responded to the latest NAPM steel survey.

Only 17% of those queried expect to increase their receipts of the metal over the next three months—far fewer than the 31% who see reductions ahead. The 14% gap between optimists and pessimists is the largest since late last year.

Distributors responding to the latest Steel Service Center Institute (SSCI) survey are somewhat more bullish. But even here the findings aren't quite as impressive as they were last month. Right now the gap between those expecting increased shipments (28%) and those anticipating decreases (15%) is only 13%. This gap is far less than the 49% difference recorded last month.

Despite all this, steel service centers are still expecting a record year. Just-in-time delivery considerations funnel an increasing amount of overall business to these distributors. March figures showed the second highest shipping rate in some six years.

Nevertheless, the industry is far from complacent. Observes SSCI president Andrew G. Sharkey, "Not all of our members are participating equally—and the marketplace continues to be extremely competitive."

Sharkey and other industry executives continue to emphasize the fact that the long-term prognosis for service centers remains very rosy.

Here are some key findings of both the buyer and SSCI surveys for the shorter term:

BUSINESS DATATRAK

■ **Inventories:** Totals are in pretty good shape. Tonnages and months' supply are holding to last month's levels.

Some 45% of the buyer respondents would like to pare inventories over the next two quarters, and not one single PM is considering increases. The service center picture is almost as impressive—50% are contemplating decreases, far outweighing the 7% who may add.

■ **Suppliers:** Only a few widely scattered worries here (in structurals and hot rolled sheet for service centers).

Some 97% of the surveyed buyers see no supply problems over the next six months. And 92% of queried service center distributors agree.

■ **Foreign competition:** Overseas bargains are still available despite the imposition of new tonnage quotas.

The service centers tend to agree. Specifically, price advantages are noted by more than 90% of the queried distributors.

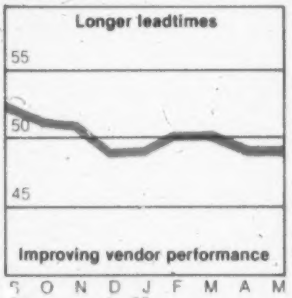
Buyers are also optimistic about holding on to this advantage. Over the next six months there are as many PMs who expect to increase their dependence on foreign steel as those who expect to cut back.

On the other hand, service centers part company with buyers on this point. Some 31% of them expect to reduce their dependency on foreign steel by summer or fall. This is far more than the 4% who predict increasing reliance ahead.

Monthly procurement status report

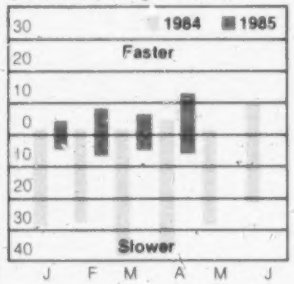
Leadtime index

A "diffusion" index based on 158 key commodities. Avove "50" indicates a tendency for leadtimes to stretch out. Below "50" suggests improving vendor performance.

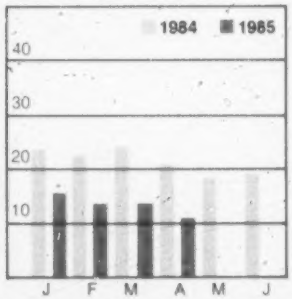


Delivery performance

(Percent reporting deliveries)

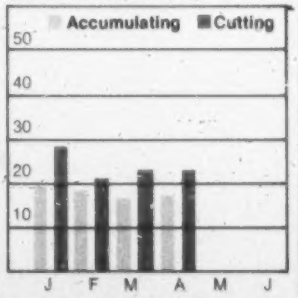


Forward commitments



Inventory strategy

(Percent of respondents)



Source: NAPM

PROCUREMENT STATUS

Buyers are calling the shots

Today's relatively easy markets are likely to persist through summer and into the fall.

It's hard to see otherwise, given the numerous encouraging buyer-oriented reports making the rounds these days. One of the most impressive is the NAPM Business Survey Committee study which suggests that delivery speedups now outnumber slowdowns by a margin of better than 2:1.

PMs responding to *PurchasingWorld*'s monthly procurement status survey tell much the same story. Indeed, several note that some vendors are even shipping ahead of specified delivery dates.

And if still more evidence of today's stable situation is needed, take a look at *PW*'s exclusive leadtime index—a compilation of more than 150 separate procurement items. At last report, this key buying yardstick was still under the neutral 50 mark.

The basic reason for this easiness is relatively flat demand at the factory level. As one PM puts it, "Industrial production has been on a virtual plateau for six months. And with new capacity coming on stream—particularly in areas like electronics—there's very little we have to worry about these days."

This could be one reason why inventories continue to shrink. Some 23% of queried buyers now say that they are cutting back on stocks—far more than the 17% who are adding.

Equally dramatic has been the drop in the number of buyers who are committing 90 days or more in advance for their production materials. Right now just 11% of queried PMs are covering their bets so far in advance.

Still another factor suggesting smooth sailing ahead: today's continuing price easiness. At latest report, 14% of the survey respondents were experiencing price declines—double the 7% being socked with boosts.

Leadtimes and availability

Chicago: The trend is toward shorter waits—with these reduced leads (in weeks): cold-rolled steel sheet (6-7), special brass sheet (1-5), special copper sheet (1½), special copper/brass rods (1-5), softwood framing (1-2), and electric coils (4-10). Moving out are PVC (6), and aluminized sheet (11).

Cleveland: Reductions predominate: 2-ply drums (on demand), cold-finish aluminum (10), softwood lumber (2-3), skids (2-3), plastic shrink film and strapping (on demand), and paper (6). Out somewhat are corrugated (3-4) and die cut paperboard circles (3-4).

Los Angeles: Some modest changes here. Extending are choice white greases (3), custom seals and gaskets (4-6), and custom storage tanks (10-12). Grey iron castings have come in a bit (to 5-6). Ditto brass castings (to 5-7). Other metals remain unchanged.

BUSINESS DATATRAK

Houston: Large scale transformers are out slightly (to 4-7 months). And some corrugated deliveries now take 3 rather than 2 weeks. Metals are generally stable in the 8-16 week range. And while there's little change elsewhere, weak prices suggest impending uneasiness in ethylene, linerboard, and component parts.

Philedelphia: A mixed pattern here. Coming in a bit (in weeks) are stainless steel flat-rolled strip (7-8) and carbon steel sheet from the mill (4). Out somewhat are corrugated cartons (3-4), chemicals for foam in place (1-2), and wooden pallets (1-2½). Fasteners are holding at stock to 4 weeks.

Pittsburgh: Little change here—with these typical weekly leads: corrugated and folding boxes (3-4), paper and plastic bags (4-6), all types of drums (1), waterproof paper (8), laminating paper (6-9), lumber (3-4), steel strapping (2-3), polyethylene (5), PVC (6), and alloying materials (2).

Leadtimes (in weeks)

	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	4	4½	9
C-R Sheet (Chgo)	6½	7	5
Plate (Phil)	3½	3½	10
Plate (Chgo)	2½	2½	2½
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	7	7	7
H-R Bars (Chgo)	3	3	3
Cold-Drawn Bars (Phil)	7	7	7
Galvanized (LA)	13	13	14
Galvanized (Chgo)	7	7	10
Structurals (Chgo)	4½	4½	4½
Structurals (Hous)	17	17	17
Tubing (Phil)	7	7	7
Grey Iron Castings (LA)	5½	6½	7½
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	5
Pipe, Carbon (Hous)	13	13	13
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	13	13	17
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	7
ICs (Linear) (Phil)	15	15	17
Motors (Phil)	13	13	15
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	10	10	10
Relays (Chgo)	15	15	15
Resistors (Chgo)	10	10	12
Resistors, Wirebound (Phil)	8	8	10
Transformers (Chgo)	10	10	10
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	3½	3½	3½
Plywood (Chgo)	2	2	2
Plywood (Phil)	1½	1½	1½
Softwood (Clev)	2½	3	3
Softwood (Phil)	⅛	⅛	⅛
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Napthalene (Chgo)	2	2	2
Paint (LA)	4	4	5
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	3	3	3½
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	3	3	3
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	6	6	2½
PVC Resin (Pgh)	6	6	6
Titanium Dioxide (LA)	1	1	1

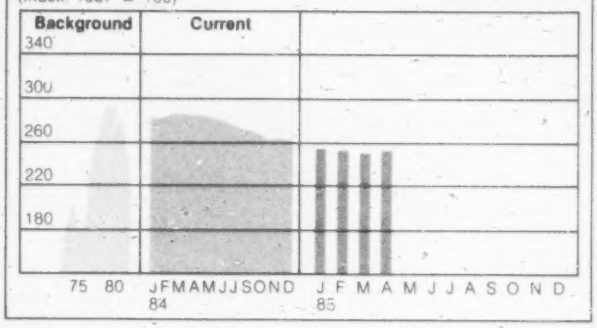
	Now	Month ago	Six months ago
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	3½	3	3
Cartons, Corrugated (Hous)	2	2	3
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3
Shrink Film (Chgo)	6	6	4
Shrink Film (Clev)	1	3	3
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	1	2½	2½
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	4	3½	3½
Glassine (Clev)	4½	4½	4½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	1	1	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NON-FERROUS			
Aluminum Coil (Chgo)	11	11	11
Aluminum Plate (Chgo)	12	12	14
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	11	11	11
Brass Castings (LA)	6	7	9
Brass Rods (Chgo)	2½	4½	6
Brass Sheet (Chgo)	2½	4½	7
Brass Tube (Chgo)	1½	4½	5
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6
Copper Tube (LA)	7	7	5½
Copper Tube (Phil)	6	6	6
Lead (Pgh)	2	2	2
Magnesium (Pgh)	2	2	4
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	3	3	3
Wire, Specialty (LA)	5	5	5
Zinc (Pgh)	2	2	2
MISCELLANEOUS			
Bearings, Domestic (Phil)	22	22	22
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	50	50	50
Compressors, Reciproc. (Hous)	39	39	39
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	5	5	7
Fasteners, Std. (Phil)	2	2	4
Heat Exchangers, Carbon-alloy Steel (Hous)	21	21	20
Heat Exchangers, Hi-pressure (Hous)	31	31	35
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	2½	2½	2½
Pumps (Hous)	30	30	35
Pumps (LA)	9	9	9
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	17
Welding Supplies (Hous)	5	5	5

BUSINESS DATATRAK

Raw material price barometer

(Index: 1967 = 100)

Latest month	253.4
Month before	252.4
Year ago	288.6



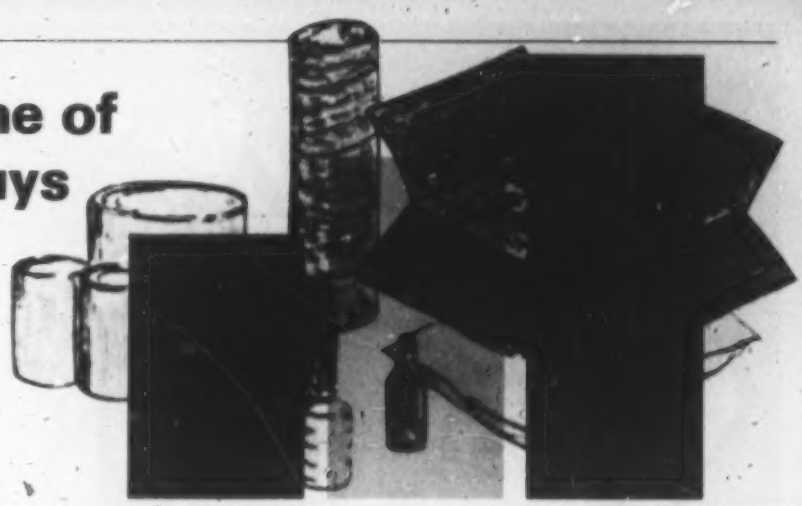
Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	347.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	25.10	25.10	24.40
Steel, bars, dlvd. Phila., cwt., merchant quality	23.95	23.95	17.50
Steel, bars, Pitts., cwt.	23.95	23.95	17.50
Steel, bars, C.R., Pitts., cwt.	29.25	29.25	26.00
Steel, plates, Pitts., cwt.	23.25	23.25	23.25
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	23.25
Steel, sheets, C.R., Detroit, cwt.	27.10	27.10	27.10
Steel, strip, C.R., Chi., cwt.	35.30	35.30	35.30
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	0.520	0.518	0.665
Antimony, in alloy, lb.	2.00	2.00	2.00
Beryllium-copper, cast ingot, lb.	5.35	5.35	5.20
Brass, red, 85%, [sheet], lb.	1.32	1.32	1.26
Brass, yellow, [sheet], lb.	1.27	1.27	1.21
Cadmium, ton lots, lb.	1.25	1.25	2.25
Copper, electrolytic, wire bars, refd., lb.	0.69	0.69	0.71
Copper sheet, over 24 in., lb.	1.41	1.41	1.35
Lead, common, N.Y., lb.	0.200	0.200	0.250
Magnesium, pig ingot, [99.8%], lb.	1.48	1.48	1.43
Mercury, 20 fl. lots, N.Y., fl.	293.00	300.00	327.00
Molybdenum Climax Oxide/bags, lb.	4.65	4.65	4.65
Nickel, electrolytic, producer, lb.	3.20	3.20	3.20
Platinum, producer, oz.	475.00	475.00	475.00
Silver, N.Y., oz.	6.28	6.74	8.73
Tin, Straights, N.Y., lb.	5.79	6.03	6.37
Zinc, Prime West, East St. Louis, lb.	0.45	0.47	0.52
Zinc, die casting alloy, No. 3, lb.	0.515	0.535	0.595
PAPER			
Uncoated book #3 offset, ton	850.00	850.00	810.00
Watermarked bond, ton	985.00	985.00	985.00
Gummed sealing tape, carton	16.25	16.25	15.45
Boxboard, mach. clay ctd. recycled sheets 80 bright, .016, ton	495.00	495.00	475.00
Wrapping paper, std. distributor cost, kraft, basis wt. 50 lb., roll	28.00	28.00	28.00
Kraft linerboard, 42 lb., unbleached, ton	320.00	320.00	320.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	0.352	0.361	0.399
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.04	1.03	1.04
Cotton middling, 1", N.Y., lb.	0.602	0.636	0.588
Printcloth, 48", 80x80, N.Y., spot, yd.	0.63	0.65	0.80
Army duck, 37", 13 oz., yd.	1.70	1.70	1.90
Blended printcloth, 64", 78x54, yd.	0.70	0.73	0.75
20s combed yarns	1.95	1.95	2.16
Wool tops, N.Y., lb.	3.60	3.60	3.60

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	0.455	0.455	0.455
Ammonia, anhydrous, fertilizer, wholesale, tanks; ton	210.00	210.00	210.00
Benzene, petroleum, tanks, Houston, gal.	1.51	1.45	1.48
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	0.58	0.58	0.58
Formaldehyde, USP, 37% [12% to 15% meth.], tanks, lb.	0.106	0.106	0.106
Glycerine, synthetic, tanks, lb.	0.86	0.86	0.81
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	0.54	0.54	0.45
Naphthalene, crude, tanks, lb.	0.22	0.22	0.22
Phthalic anhydride, tanks, lb.	0.305	0.305	0.305
Polyethylene resin, low density liner film grade (market price), lb.	0.280	0.280	0.415
Polypropylene, homopolymer grade (market price), lb.	0.330	0.330	0.415
Polystyrene, general purpose grade (market price) lb.	0.35	0.34	0.42
Shellac, bone dry, N.Y., lb.	1.65	1.65	1.65
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	0.26	0.26	0.35
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	157.50	157.50	140.00
Sulphuric acid, 66%, commercial, tanks, ton	56.85	56.85	56.85
Titanium dioxide, anatase, reg., carlots lb.	0.69	0.69	0.69
Xylene tanks, gal.	1.36	1.36	1.28
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl.	302.25	302.00	324.40
Lumber, 2x2, pine, mbf, cl.	299.95	300.35	316.05
Plywood, plyform, ¾", msf, cl.	566.95	570.20	571.95
Plywood, ⅜", msf, cl.	367.85	372.10	366.80
Cement, bulk, ton, tl.	64.76	64.76	62.04
Sand, ton, cl.	6.24	6.21	6.15
Ready-mix concrete, 3,000 psi/cu.yd., 15 cu. yd.	47.64	47.39	45.86
Crushed stone, 1½", ton, cl.	7.62	7.57	7.82
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl.	0.80	0.79	0.76
Gypsum sheathing, ½"x1"x8", msf, tl.	207.94	206.44	219.26
Brick, common, per thousand, tl.	180.28	179.89	174.08
Asphalt paving, AC-20	175.64	175.08	164.21
Concrete sewer pipe, 12", prem. joint, per foot, cl.	7.24	7.22	6.95
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf., bbl.	22.25	23.85	27.00
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	28.50	29.25	31.40
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	0.860	0.855	0.850
Gasoline, 94 oct., reg., Chi., tank car, gal.	0.818	0.810	0.810
Heating oil, No. 2, Chi., bulk, gal.	0.775	0.765	0.825
Heating oil, No. 2, N.Y., bulk, gal.	0.800	0.818	0.878
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.25
Jet kerosene, gal.	0.715	0.743	0.805
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	0.355	0.355	0.420
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	72.00	85.00	102.00
Steel, No. 1, hvy., dlvd., Chi., ton	67.00	79.00	84.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	0.570	0.575	0.600
Copper, No. 2, East, wholesale buy,	0.480	0.500	0.510
Brass, red, East, wholesale buy, dlvd., lb.	0.530	0.535	0.560
Brass, yellow, East, wholesale buy, dlvd., lb.	0.330	0.350	0.380
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	0.290	0.325	0.475
Alum., mixed clip, E., wholesale buy, dlvd., lb.	0.320	0.345	0.505
Zinc, old, East, wholesale buy, dlvd., lb.	0.140	0.140	0.185
Lead, clean solids, East, wholesale buy, dlvd., lb.	0.110	0.100	0.145
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	15.00	15.00	32.00
Paper, old corrug. box, dlr., N.Y., ton	10.00	10.00	29.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	0.10	0.10	0.13
White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb.	0.26	0.28	0.32

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

Packaging is one of year's better buys



Robert S. Reichard, executive editor

Competitive pressures are beginning to build up in the $60 billion-plus U.S. packaging market.

Overall price averages may continue to inch up, but the increases will be more moderate and scattered than over the last 12 months. There will be plenty of opportunities for money-saving deals.

A softer market tone is already apparent in some industry sectors. A recent *PurchasingWorld* nationwide survey revealed buyers are noting easiness in linerboard and corrugated cartons. A few also report softness in folding boxes, paper bags, plastics, and glass.

An encouraging sign: Two out of three buyers surveyed said 1985 prices will fall behind last year's gains. And the average packaging price boost for all of this year is put at about 2%—half that of last year.

Equally significant, more than half the respondents said they hope to keep tags at or below levels at the beginning of the year. That's in sharp contrast to the 20% who were able to do so in 1984.

One reason for this optimistic projection could stem from the downward pressure on corrugated —a product that accounts for roughly 25% of the nation's overall packaging bill. Several buyers feel they can knock a few percentage points off corrugated averages before year end. If so, it would mean a major turnaround for a product that has been moving up at double-digit rates (see chart).

Buyers of plastic packaging also remain optimistic about holding the price line—citing lingering easiness in most basic resins. They would like to see a repeat of last year's performance, when 2% was knocked off the average plastic bottle quote.

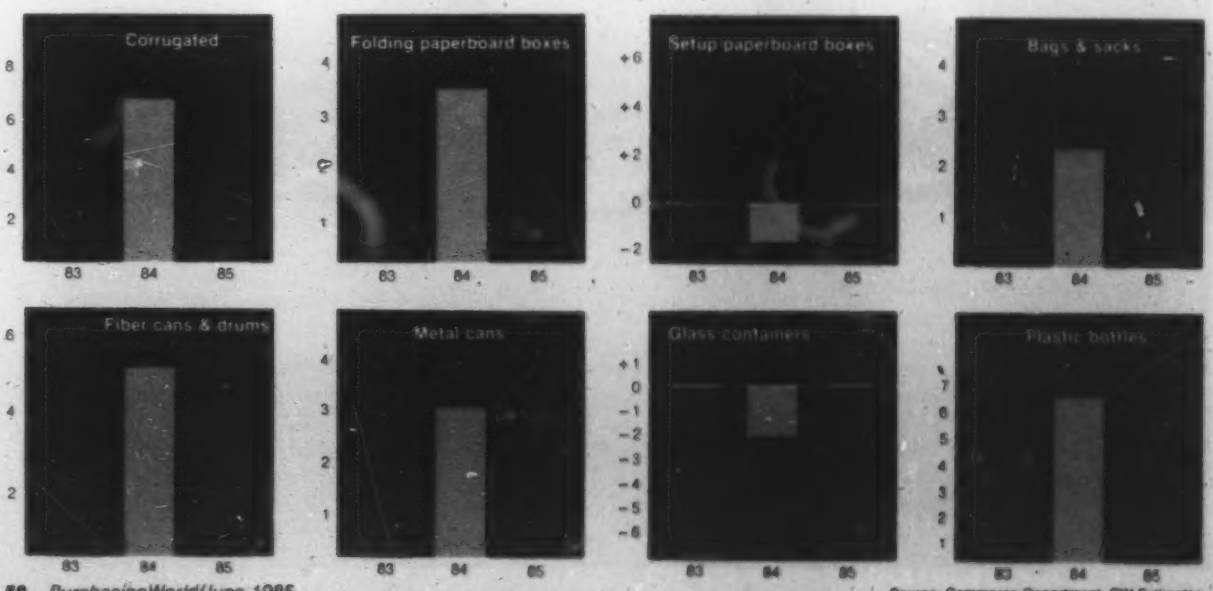
Metal can prices are not likely to move up much either, with both steel and aluminum prices failing to respond to the general business pickup.

Also adding to the hold-the-price stance of most buyers is the fact demand won't be growing as fast as it did last year, when packaging use grew a healthy 4.5%. A product-by-product rundown (see chart) shows that six out of eight monitored packaging modes will show smaller demand gains this year. In the other two modes some modest gain is anticipated because of a partial recouping of 1984 declines.

PMs responding to the *PW* survey talk of stepping up negotiating pressure by talking to more vendors, soliciting quotations at more frequent intervals, and asking for better deals in exchange for long-term commitments.

The trend toward substitution, innovation, and redesign also seems to be as strong as ever, with the majority of queried PMs suggesting that some changes are either underway or in the talking stage. For ex-

A detailed look at demand



Source: Commerce Department, PW Estimates

ample, one buyer tells of saving 4% overall by working with his supplier on design changes.

Some also cite using value analysis to effect savings. These studies point to thinner gauge materials, downsizing overall packaging, or shifts to cheaper materials.

The fight among various materials is also getting hotter. Plastics are continuing to make inroads against glass in the bottle market. Synthetic materials have also shown some substantial advances in the bag market against paper. Conservative estimates place plastic penetration into the bag market at 12-13%.

The steel-aluminum battle is still hot. Reynolds, for example, is actively pursuing the steel food can market by offering an aluminum food can and a flexible pouch made of aluminum foil and plastic film.

Take a more detailed look at the current and projected market patterns:

■ **Corrugated cartons:** The big news is the price erosion occasioned by discounting in linerboard where transaction prices have dropped to as low as $290/ton—some $60 off the official list of $350/ton. Add to this shakiness a modest deceleration in demand, with 1985 to-date shipments running only fractionally ahead of last year's levels. This demand level isn't likely to pick up for now. The industry will be lucky to ship 280 billion square feet—only 3.5% above 1984—a far cry from last year's 6.7% increase.

■ **Other paperboard packaging:** Several different product lines are involved here—though together they make up less than 40% of total paperboard packaging (some 61% is corrugated). In descending order of importance they are folding boxes (18%), sanitary food containers (12%), fiber cans (7%), and setup boxes (2%).

All signs point to about a 2% demand increase in folding boxes through 1985—well under last year's 3.5% advance. Behind the slowdown is less buoyant economic activity which means moderation in demand for packaged nondurables.

The fiber and drum growth rate could also fall off a bit (from 5% down to 4%). But sanitary food container gains should hold.

■ **Bags:** A 2% increase in combined paper and non-paper types is projected for 1985—just fractionally under last year's 2.3% estimated advance. Plastic types will again be the best performers. But paper is fighting back emphasizing its products are biodegradable and speed up checkout lines in the supermarket.

It's a big market—some $500 million is spent for an estimated 27 billion grocery bags each year—and a percentage point or two fluctuation can make a big difference in vendor earnings.

■ **Cans:** Little more than a 1% increase in demand is expected for 1985—well under the 3.5% and 3% increases of 1983 and 1984. Reason: some slowdown in buying by the canned food and beer markets, plus increased competition from glass and plastic bottles. Through the end of the decade, only 1-2% annual increases are seen.

But aluminum cans, which already account for two-thirds of the total metal can market, will continue to pick up market share. This year, aluminum can manufacturers expect production to approach 67 billion units—up five billion from 1984.

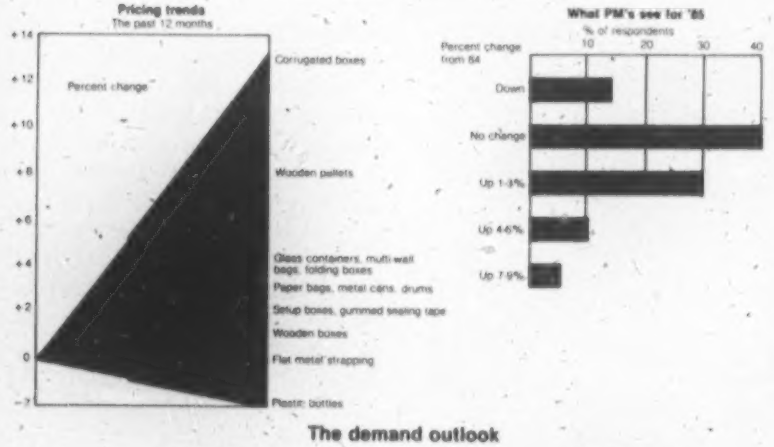
Development of the resealable aluminum can will certainly help. As the metal moves more deeply into the food sector, long term overall gains in aluminum could settle in the 3-5% range.

■ **Plastic bottles:** This remains one of the faster growing packaging sectors, with a 6% gain projected for the current year, on top of 1984's 6.6% advance. Biggest gains are still in the soft drink market where last year plastics soaked up 22.6% of total gallonage.

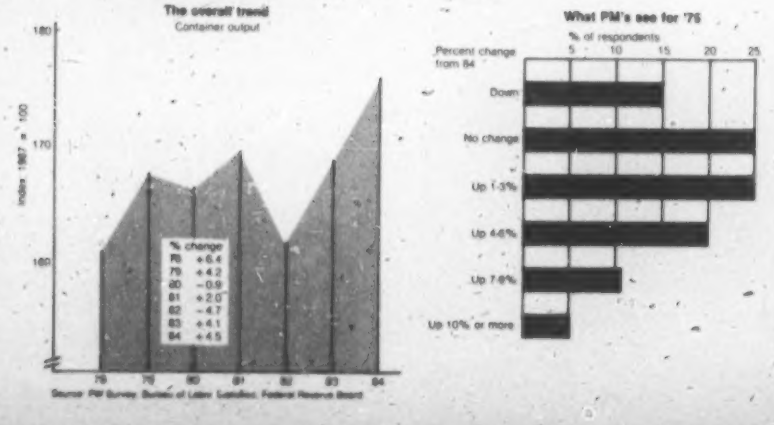
The uptrend is expected to continue with improvements in gas barriers and carbonation retention expected to add 5-6% annual gains over the next five years.

If you add in flexible packaging, plus the introduction of plastic cans

How packaging markets shape up



The demand outlook



(now in the development stage), these synthetics could well account for 50% of the primary food packaging business within 15 years.

■ **Glass containers:** The traditional packaging material has been feeling the impact of PET beverage bottles. Not surprising, demand has been falling four consecutive years—off a hefty 13% from 1980.

But the industry isn't ready to throw in the towel. Lowered capacity, improved production methods, and more competitive pricing patterns suggest that markets may stabilize or even move up a bit. Demand for 1985 could climb by 1%, with similar advances possible through the remainder of the 1980s.

PW

Packaging takes on new high tech forms

When your company is a $3 billion packaging giant employing more than 25,000 people worldwide with an excellent reputation for productivity, efficiency, and quality, how do you become more concerned with customer-oriented marketing efforts?

James A. Lorincz, editor-in-chief

For Continental Can Co. Inc. of Stamford, CT, one answer was to replace its traditional orientation along product lines with an organization along market segment lines.

"What we are really saying to the packaging buyer is that we can supply a packaging solution to his problems from the many different packaging materials, container types and systems, and technologies that Continental Can offers," Richard Hofmann, executive vice president and operating officer for Continental Can, tells *PurchasingWorld*. Continental is creating what Mr. Hofmann calls a "materials indifferent" approach to managing the dynamics of package substitution.

And, of course, substitution continues to be the major force in the packaging selection process. If a new technology or package threatens to displace a particular product line, another Continental Can Co. division serving the same market segment can most likely substitute a new package for the old.

Continental Can divisions, which really are businesses ranging in size from $100 million to $700 million in sales, have the breadth to accomplish even the most daunting packaging changes. A good example of this was the development of the plastic motor oil container for Quaker State, a shift that was one of the largest packaging changes ever made.

Continental coordinated all aspects of the conversion, including the creation of a proprietary package and the design of a complete turnkey renovation of Quaker State's filling plant in Vicksburg, MS. This required expertise in consumer research, extrusion blow molding, and filling and conveying line construction. In addition, Continental retrained the entire work force through a formalized program in which all line maintenance personnel and machine tender/operators were taught to operate its new equipment.

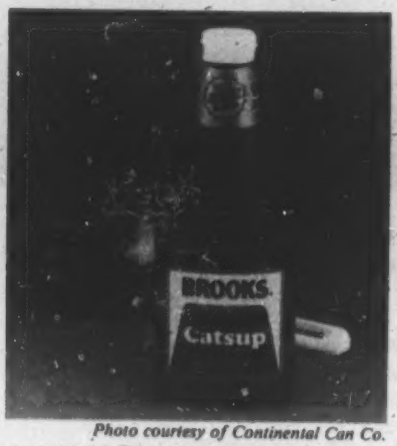


Photo courtesy of Continental Can Co.

LAMICON™ plastic barrier bottles designed for regional and private label brands are six layer bottles which can be extrusion blow molded at four of Continental Can's 14 bottle plants.

Photo courtesy of Continental Can Co.

CIRCA Inc., Continental Can's new graphic services business, will offer packagers a fully integrated computerized system of services, ranging from conceptual design to color separations and press plates. Using computer imaging technology, designers can create or modify packaging designs in a matter of minutes or hours, instead of days and weeks for conventional photomechanical reproduction process.

High tech packaging

Under its new market oriented approach, Continental is able to draw on its impressive array of new technologically advanced packaging developments.

Featured on our cover is its new CIRCA computer-aided design facility and capability. The equipment installed in CIRCA's new facility in Bedford, MA consists primarily of a Scitex Response 350 system for electronic design, layout, color correction, image creation, and color separated film production.

The ability of the CIRCA system to produce and modify packaging designs quickly has far-reaching marketing implications, says Mr. Hofmann.

"Users will be able to target pack-

The kind of year(s) a shipper can live with

It's still a buyers market in freight services. Right now, all signs point to about a 3.3% overall rate hike this year—slightly above the 2% increase of 1984.

Equally significant, 1986 is also beginning to look like a year shippers can live with. Wharton Econometrics (the big consulting firm that prepares these exclusive quarterly reports for *PW* readers) now sees only a 4.9% overall freight rate increase for that year—a modest downgrading of the 5.2% advance anticipated just three months ago.

Wharton analysts attribute the continuing good news to a combination of factors—including (1) ample or more-than-ample capacity, (2) less-than-sensational jumps in traffic, and (3) expectations of a still-strong dollar.

On the latter score, Wharton feels that dollar declines won't be strong enough to set inflationary pressures in motion—pressures that would substantially boost the material and labor inputs of most carriers.

The optimism doesn't stop after 1986 either. Wharton's extended forecast sees overall freight rates for 1987 rising only about 5.2%.

And what is true for overall freight holds for each of the major modes. Detailed trends are shaping up along these lines:

■ **Rail:** The pace of growth in both freight carried and prices should slow in 1985. Cumulative rail ton-miles for the first quarter of the year, for, example were down 4.7% from a year earlier. Even piggyback traffic fell behind the earlier pace.

True, the year as a whole should be somewhat better—and ton-miles again end up in the plus column. But gains won't be nearly enough to permit major rate hikes. All in all, tariff increases should be quite moderate, averaging 3-4% quarterly (seasonally adjusted annual rate), and 4.5% for the year as a whole. Rate hikes in 1986 should average in the same range.

■ **Truck:** Traffic is still running ahead of its year-earlier pace but not by the margins of last year. Less-than-truckload tonnage is still outpacing truckload activity, reflecting the smaller batches shipped with the growing popularity of just-in-time inventory management.

As for rate increases, some bureaus have already posted 2-6% boosts. But these should be watered down as contract and volume deals continue to proliferate. In any event, look for only a 3.7% boost for the year as a whole—not that much above last year's 2.7% advance. In 1986 and 1987, however, haulers will get more of the increases they have been waiting for, and price advances will move into the 5% range.

■ **Air:** Demand grew 4.6% in 1984 while prices jumped 6.7% as carriers tried to recoup their losses from the previous year. But both demand and price gains should slow down in 1985—as the pace of overall economic activity moderates and input prices hold steady.

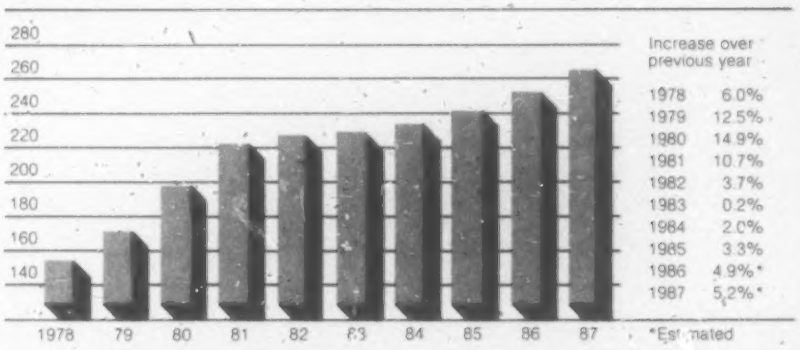
The slowdown is already apparent on the demand front where first quarter air freight declined 7.9% *vis a vis* a year earlier. Some gains are expected but they will be modest—in the range of 4.8% for overall 1985. Even smaller increases of 4.3-4.5% are likely for 1986 and 1987.

■ **Barge:** Shipping growth has lagged behind all other freight services. Factors such as continued overcapacity and cutthroat inter-industry competition help explain why rates fell an average of 4.2% last year.

No dramatic turnaround is anticipated for 1985. Current trends suggest only about a 1.8% increase in traffic—probably sufficent to stabilize rates, but not nearly enough to allow any significant increases. On the other hand, some rate acceleration is probable in 1986 and 1987 when tags are expected to move up about 4.5% annually.

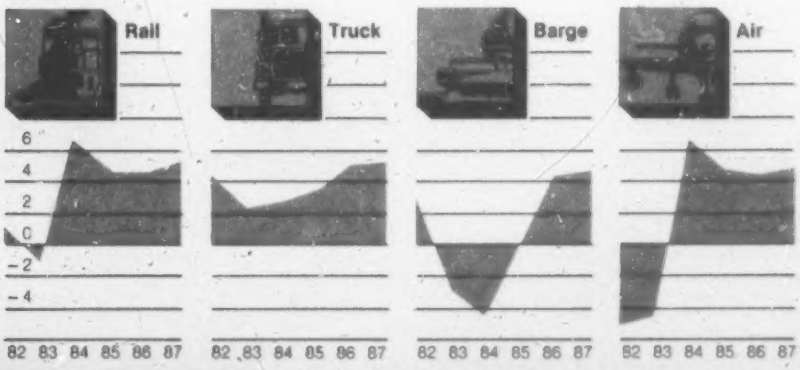
PurchasingWorld freight rate index

(1972 = 100)



Freight cost outlook by mode

(Percent increase over previous year)



Source: Wharton Econometric Forecasts

NOTE

ONLY THE FOLLOWING PAGES OF THIS

PUBLICATION HAVE BEEN FILMED

Cov. 1, p. 3, 11, 14, 16,

19, 22, 26, 28, 32-33, 38,

40, 42, 44-45, 74, 76.